The IEEE HLA Standards:
The Evolution from U.S. DoD HLA V1.3

ABSTRACT

The High Level Architecture (HLA) was developed by the U.S DoD, under the guidance of the Defense Modeling and Simulation Office (DMSO), to provide a common architecture for distributed modeling and simulation throughout the Department. The HLA consist up of three components, the HLA Rules, the HLA Object Model Template (OMT) and the HLA Interface Specification, that are defined in a family of three interrelated specifications that should be considered as a product set. While started in the U.S. DoD to address the Department's M&S requirements, the HLA is promulgating rapidly to the international defense community as well as to the US and international commercial industry. In support of this adoption of the HLA, and because the U.S. DoD is not interest the getting into the standards business, the DMSO nominated the HLA for IEEE standardization. In this way the HLA specifications could be made better and tighter through a consensus process involving the broader M&S community. This panel discussion starts by providing a brief background on the decision to nominate the U.S DoD HLA specifications for adoption as broader industry standards. That is followed by a short discussion of the process required for creating the IEEE versions of the HLA specifications. The discussion then wraps up with a brief overview of the improvements that have been made in the specifications as a result of this consensus-based process.

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Mr. Lightner is the Director of the Professional Training and Education Group at The AEgis Technologies Group, Inc. In this role he establishes, communicates and fosters the vision, goals and agenda for providing comprehensive training and education offerings on simulation technologies and techniques and their application in achieving real world objectives. In addition he is the Project Manager for the Defense Modeling and Simulation Office (DMSO) High Level Architecture (HLA) Integrated Training Program. Mr. Lightner is on the Board of Directors of the Simulation Interoperability Standards Organization (SISO), Inc. and a member of SISO's Standards Activity Committee. He has served as the Drafting Group Chair and currently the Ballot Resolution Committee Chair for the development of the Draft IEEE 1516 HLA Framework and Rules specification. He previously managed the successful HLA Command and

Control (C2) Experiment which extended the existing Joint Training Prototype Federation (JTFp) through the integration of three real world C2 federates (AFATDS, CTAPS & MCS/P).

Mr. Lightner served in the U.S. Air Force from 1972 through 1996. During his last assignment at Wright Laboratory, he managed a critical modeling, simulation, and analysis program aimed at electronic combat and avionics advanced technology and led the JMASS federate team in the HLA Engineering Protofederation experiment.

Mr. Lightner has a B.S. degree in Computer Science from the College of Engineering, Arizona State University and a M.S. degree in Computer Science from the Air Force Institute of Technology.